No. 8700186

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

MMG Agriseed/Tainio Technology & Technique

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY, AS PROVIDED BY LAW, THE RIGHT TO EXDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, PORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS F CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Camelot'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D. C. *this* 30th *day of* September *in the year of our Lord one thousand nine hundred and* ninety-one.

Attest:

Kenneth A. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
MMG AGRISEED	MMG 731-1	CAMELOT

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*	5. PHONE *(Include area code)*
Plant Breeding & Research Centre Docking, King's Lynn, Norfolk PE31 8 LS United Kingdom	(04858) 501

FOR OFFICIAL USE ONLY

PVPO NUMBER: 8700186

6. GENUS AND SPECIES NAME	7. FAMILY NAME *(Botanical)*
Hordeum vulgare L.	Gramineae

FILING
DATE: August 3, 1987
TIME: 2:00 ☐ A.M. ☑ P.M.

8. KIND NAME	9. DATE OF DETERMINATION
Spring barley	December, 1982

FEES RECEIVED
AMOUNT FOR FILING: $ 1800.00
DATE: August 3, 1987
AMOUNT FOR CERTIFICATE: $ 200.00
DATE: August 21, 1991

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Commercial Seed Company

11. IF INCORPORATED, GIVE STATE OF INCORPORATION	12. DATE OF INCORPORATION
United Kingdom	

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Tainio Technology & Technique, Inc., Route 2, Box 286, S. 12102 Andrus Road, Cheney, WA 99004, U.S.A.

PHONE *(Include area code)*: (509) 747-5471

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)* ☒ Yes *(If "Yes," answer items 16 and 17 below)* ☐ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☒ Yes ☐ No	☒ Foundation ☒ Registered ☒ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes *(If "Yes," give date)*

☐ No

8/21/91

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES ?

United Kingdom - 19th December 1983
West Germany - 31st December 1984
Spain - 31st July 1986

☒ Yes *(If "Yes," give names of countries and dates)*

☐ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT	DATE
D P Ruddick.	1st September 1987
Douglas P. Ruddick, Chief Executive, MMG AGRISEED	
SIGNATURE OF APPLICANT	DATE
Bruce Tainio, President, Tainio Technology & Technique, Inc.	9/9/87

Authorized Agents

FORM LS-470 (3-86) *Edition of 7-84 obsolete.*

1

E X H I B I T A.

Origin and Breeding History of the Variety

CAMELOT was selected from the cross:-

F1 HD727 x Aramir

The cross was made in 1973. The F1 was grown overwinter. The F2 was selected on a single plant basis. F2 ear progenies (F3 seed) were grown in the Canary Islands. Ears were sent back and F4 ear rows were grown in the U.K. Selection then followed the pedigree method. Whilst undergoing yield trial evaluation, the variety was maintained by Ear selection, ear progeny row selection and ear row progeny plot selection. True to type ear row progeny plots were bulked to produce the variety.

Multiplication

1. Breeders Seed - bulk of true to type ear row progeny plots. Reselected ear progeny rows grown within this crop. Grown at the Plant Breeding & Research Centre. Seed produced is used for Pre-basic.

2. Pre-basic crops grown at the Plant Breeding & Research Centre or on Contract seed growers' farms. Pre-basic used to produce Basic Seed.

3. Basic seed was grown and field inspected on Contract growers' farms.

The main area of cultivation is in West Germany. Results of official Distinctness, Uniformity and Stability tests in England, West Germany and Spain showed that CAMELOT met the required standards for the aforementioned characters.

P. R. Aldis
12th May 1987.

E X H I B I T B.

Novelty Statement

Copies of the official UK and Spanish descriptions of CAMELOT are attached as Exhibit D. These descriptions establish its unique characters.

CAMELOT resembles APEX and to some extent MENUET.

CAMELOT differs from APEX in the following characters:-

1. The seedlings of CAMELOT are resistant to DDT. Those of APEX are susceptable.

2. The ear of CAMELOT is lax to very lax whilst that of APEX is medium lax.

3. The ear rachis mid-third segment of CAMELOT is medium to strongly 'humped' in profile, whilst that of APEX is ± straight.

4. Anthocyanin pigment in the lemma nerves is medium to medium strong at maturity in CAMELOT but variable from very weak to medium in APEX.

5. The grain skin is finely wrinkled in CAMELOT but mostly coarsely wrinkled in APEX.

CAMELOT differs from MENUET in the following characters:-

1. At tillering pigmentation in the lower leaf sheaths is strong in CAMELOT but weak in MENUET.

2. At earing flag leaf auricle pigmentation is strong in CAMELOT and medium in MENUET.

3. After earing the neck length is absent to short in CAMELOT, but medium in MENUET.

4. The mid-third rachis segment of the ear is medium to strongly 'humped' in CAMELOT but only weakly so in MENUET.

5. Spicules are absent from both the inner and outer lateral nerves of the lemma in CAMELOT but present on both in MENUET.

P. R. Aldis
12th May 1987.

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E X H I B I T B.

(continued)

Furthermore, CAMELOT is unique compared to all other varieties of barley in that it is the only variety which combines genetic characteristics of the HD 727 cultivar, and ARAMIR (see EXHIBIT A).

1. Morphologically; CAMELOT is unique to ARAMIR which is the closest in morphology (since it is one of the parents) because the lodicules are shorter, than in ARAMIR.

2. Chemical resistance; CAMELOT is resistant to DDT whereas ARAMIR is not.

3. Disease resistance; CAMELOT is not only resistant to powdery mildew due to the genetic combination of Mlg + Mla_{12} or Mla_9 + Mlv, either of which are possible as a result of the cross HD 727 x ARAMIR, but it is also resistant to Rhyncosporium, this factor from Magnif 105 in the HD 727 parentage (see attached).

NO OTHER BARLEY VARIETY IN EXISTENCE POSSESSES these resistant factors, from these sources, uniquely combined in the morphological form of CAMELOT, due to the uniqueness of the particular and intentional hybridization of HD 727 x ARAMIR from which it is descended.

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6.4 RESISTANCE TO DISEASES AND PESTS

6.4.1. Seedling resistance, so far as is known

	Details of Resistance Factors or Races
Mildew (Erysiphe graminis)	Mlg + Mla_{12} or Mla_9 + Mlv is possible
Yellow rust (Puccinia striiformis)	Susceptible
Brown rust (Puccinia hordei)* (~~Puccinia recondita~~)*	Susceptible
Eyespot (Pseudocercosporella herpotrichoides)	
Other (State disease)	Rhynchosporium : R. factor from Magnif 105 in HD 727

* delete as appropriate for wheat or barley

6.4.2. Adult plant resistance. Details and comparison with control varieties on 0-9 scale (9 = high resistance)

	Number and Type of Trials	Name of Control	Score 0 - 9	
			Control	Candidate
Mildew	1981 Yield trials and observation plots	GOLDMARKER	5	7
		SUNDANCE	6	7
		TRIUMPH	7	7
Yellow rust	ditto	GOLDMARKER	7	4
		SUNDANCE	6	4
		TRIUMPH	6	4
Brown rust	ditto	GOLDMARKER	4	6
		SUNDANCE	6	6
		TRIUMPH	6	6
Septoria nodorum				
Rhynchosporium secalis	ditto	GOLDMARKER	5	7
		SUNDANCE	5	7
		TRIUMPH	5	7
Eyespot				
Other (state disease)				
Pest (state pest eg nematode)				

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FORM APPROVED: OMB NO. 40-R3822

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Barley)

OBJECTIVE DESCRIPTION OF VARIETY
BARLEY *(HORDEUM VULGARE)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
MMG AGRISEED

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Docking, King's Lynn, Norfolk
PE31 8LS, United Kingdom

FOR OFFICIAL USE ONLY
PVPO NUMBER 8700186
VARIETY NAME OR TEMPORARY DESIGNATION CAMELOT

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (i.e. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:
[1] 1 = SPRING 2 = FACULTATIVE WINTER 3 = WINTER [4] Early Growth: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT 4=semi erect intermediate

2. MATURITY (50% Flowering):
[2] 1 = EARLY (California Mariout) 2 = MIDSEASON (Betzes) 3 = LATE (Frontier)

[ ] No. of days *Earlier* than . . . . . [ ]
[ ] No. of days *Later* than . . . . . [ ]
1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

3. PLANT HEIGHT (From soil level to top of head):
[3] 1 = SEMIDWARF 2 = SHORT (California Mariout) 3 = MEDIUM TALL (Betzes) 4 = TALL (Conquest)

[ ][ ] Cm. *Shorter* than . . . . . [ ]
[ ][ ] Cm. *Taller* than . . . . . [ ]
1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON 5 = PIROLINE 6 = PRIMUS 7 = UNITAN

4. STEM:
[1] Exertion *(Flag to spike at maturity):* 1 = 0 - 3 cm. 2 = 3 - 10 cm. 3 = 10 - 15 cm.
[2] Anthocyanin: 1 = ABSENT 2 = PRESENT

[ ][ ] NO. OF NODES (Originating from node above ground)

[1] platform Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN 4 = MODIFIED CLOSED OR OPEN
[ ] Shape of Neck: 1 = STRAIGHT 2 = SNAKY 3 = OTHER (Specify) .

5. LEAF:
[1] Basal leaf sheath *(seedling):* 1 = GLABROUS 2 = PUBESCENT
[3] Position of flag leaf *(at boot stage):* 1 = DROOPING 2 = UPRIGHT 3=intermediate
[3] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
[ ][ ] MM. WIDTH (First leaf below flag leaf)
[ ][ ] CM. LENGTH (First leaf below flag leaf)
[2] Anthocyanin in leaf sheath: 1 = ABSENT 2 = PRESENT

6. HEAD:
[1] Type: 1 = TWO-ROWED 2 = SIX-ROWED
[1] Density: 1 = LAX 2 = ERECT (Not dense) 3 = ERECT (Dense)
[2] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify)
[2] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
[ ] Lateral Kernels Overlap: 1 = NONE 2 = AT TIP 3 = 1/4 - 1/2 OF HEAD
[2] Rachis *(Hair on edge):* 1 = LACKING 2 = FEW 3 = COVERED

7. GLUME:
[3] Length: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA 3 = MORE THAN 1/2 OF LEMMA
[3] Hairs: 1 = NONE 2 = SHORT 3 = LONG
[4] Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO BAND 4 = COMPLETELY COVERED
[2] Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LENGTH OF GLUMES 3 = MORE THAN EQUAL TO LENGTH OF GLUMES
[3] Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

6/14/

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8. LEMMA:

[5] Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS, AWNLESS ON LATERAL ROWS 3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike) 5 = LONG (longer than spike) 6 = HOODED

[3] Awn Surface: 0 = AWNLESS 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

[1] Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS

[1] Hair: 1 = ABSENT 2 = PRESENT

[1] Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE

[2 1] Rachilla Hairs: 1 = SHORT 2 = LONG

9. STIGMA:

[ ] Hairs: 1 = FEW 2 = MANY

10. SEED:

[2] Type: 1 = NAKED 2 = COVERED

[1] Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT

[2] Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.) 4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)

[2] Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED

[1] Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE

[ ][ ] PERCENT ABORTIVE

[ ][ ] GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SEPTORIA	[0] NET BLOTCH	[0] SPOT BLOTCH	[2] POWDERY MILDEW
[ ] LOOSE SMUT	[0] BACTERIAL BLIGHT	[1] COVERED SMUT	[0] FALSE LOOSE SMUT
[0] STEM RUST	[1] LEAF RUST	[1] SCAB	[2] SCALD
[0] AY	[0] BSMV	[1] BYDV	[ ] OTHER (Specify)

12. INSECT: (0 = Not tested, 1 = Susceptible, 2 = Resistant)

[0] GREEN BUG	[0] ENGLISH GRAIN APHID	[0] CHINCH BUG	[ ] ARMYWORM
[0] GRASS HOPPERS	[0] CERIAL LEAF BETTLE	[ ] OTHER (Specify) _____	

HESSIAN FLY RACES: [0] GP [0] A [0] B [0] C [0] D [0] E [0] F [0] G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[2] DDT [ ] OTHER (Specify) _____

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering		Seed size	
Leaf size		Coleoptile elongation	
Leaf color		Seedling pigmentation	
Leaf carriage			

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

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M.M.G. AGRISEED - PLANT BREEDING & RESEARCH CENTRE, DOCKING

8700186

U.K. DESCRIPTION

Exhibit D.

SPRING BARLEY

C A M E L O T

Origin	HD 727 x Aramir
Breeder	M.M.G. Agriseed, Plant Breeding & Research Centre, Docking, Norfolk, PE31 8LS.
Breeder's Designation	MMG 731-1

Ear

General	- Two-row, narrow, parellel, length medium to medium-long, density lax to medium-lax; sterile spiklets divergent, length medium, rounded at tips, awns rough, longer than ear.
Collar	- Platform
Rachis	- First segment, variable medium to long, width medium, strongly curved or angular, margin hairs absent to sparse. Segments in mid-third medium to strongly 'humped' in profile.

Grain

General	- Medium size, oval, skin finely wrinkled, anthocyanin pigment in lemma nerves at maturity medium to medium-strong.
Base of Lemma	- Bevelled
Rachilla	- Length medium to medium-long occ. long; hair type long; hairs at apex short.
Spicules	- Absent from inner and outer lateral nerves.
Ventral Furrow	- Glabrous
Lodicules	- Collar type, short to intermediate.

Field Characters

At tillering, habit of growth semi-erect to intermediate; leaf length and width medium; leaf sheaths glabrous, pigment strong.
At shooting, leaf attitude erect to semi-erect.
At earing, flag leaf length short-medium to medium, width medium, attitude semi-erect to horizontal, auricle pigment strong.
After earing, sheath and culm glaucosity medium-strong, ear glaucosity medium; awn tip pigment medium-strong; neck length absent to short.
At maturity, ear drooping.
Reaction to DDT - Resistant.

MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACION
INSTITUTO NACIONAL DE SEMILLAS Y PLANTAS DE VIVERO

TITULO DE OBTENCION VEGETAL

Especie: CEBADA

Variedad: CAMELOT

8700186

MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACION
INSTITUTO NACIONAL DE SEMILLAS Y PLANTAS DE VIVERO

TITULO DE OBTENCION VEGETAL

El Ministro de Agricultura, Pesca y Alimentación:

De acuerdo con la Ley 12/1975, de 12 de marzo, sobre Protección de Obtenciones Vegetales y a propuesta de la Comisión de Protección de Obtenciones Vegetales elevada a través de la Junta Central del Instituto Nacional de Semillas y Plantas de Vivero, y vista la solicitud del Título de Obtención Vegetal con n.º de registro 820736 *, presentada por* THE MILN MARSTERS GROUP Ltd. *el día* 27 *de* Agosto 82 *a las* 12,45 *horas correspondiente a una variedad de* Cebada *obtenida por* THE MILN MARSTERS GROUP Ltd.

Ha decidido conceder al solicitante el Título de Obtención Vegetal número 396 *, para la citada variedad que se denominará* CAMELOT *a quien se le otorgan los derechos que la referida Ley le confiere desde el día* 31-7-86 *hasta el día* 31-7- 2002

En cumplimiento de lo dispuesto, se emite el presente Título en Madrid a 31 *de* Julio *de 19* 86

MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACION
Instituto Nacional de Semillas y Plantas de Vivero

p. EL DIRECTOR DEL INSTITUTO NACIONAL DE SEMILLAS Y PLANTAS DE VIVERO

Fdo.: Jesús Fdez. de Bobadilla
SECRETARIO GENERAL

Caracteres \	Variedades.....CAMELOT (MKG-731-1)
VELLOSIDAD VAINA INF.	AUSENCIA
PORTE PLANTA	MEDIO
COLORACION HOJAS	V.AZULADO
PIGM.ANTOC.VAINAS	PIGMENTADO
PORTE BANDEROLA	SEMIERECTO
PIGM.AURICULAS	PRESENCIA
INT.PIG.AURICULAS	FUERTE
PRECOCIDAD	
PIG.ANTOC.ARISTAS	PRESENCIA
INTENS.PIGMENT.ARISTAS	FUERTE
GLAUESCENCIA VAINA HOJA SUP.	MUY FUERTE
GLAUESCENCIA LIMBO HOJAS	PRESENCIA
INTENS.GLAUES.HOJAS	DEBIL A MEDIA
GLAUESCENCIA ESPIGA	MEDIA
FORMA DEL ULTIMO NUDO	HORIZONTAL
PRESENCIA ARISTAS LEMMA	PRESENCIA
PORTE ESPIGA	SEMIERECTO
PORTE ESPIGA MAD.	COLEANTE
COLOR ESPIGA	V.BRISACEO
PIG.NERVIOS LEMMA	PRESENCIA
INT.PIGMENT.LEMMA	FUERTE
LONGITUD CUELLO ESPIGA	NULA
FORMA CUELLO ESPIGA	SINUOSO
LONGITUD ARISTAS/ESPIGA	MAS LARGA
ALTURA PLANTA	
NUMERO CARRERAS	DOS
DENSIDAD ESPIGA	LAXA
FORMA ESPIGA	PARALELA
LONGITUD ESPIGA	LARGA
DIENTES NERVIAD.LAT.ARIST.LEMMA	PRESENCIA
PROTUBERANCIA CUELLO	AUSENCIA
TIPO DE COLLAR	CERRADO
FORMA DE COLLAR	PLATAFORMA
LONGITUD PRIMER SEGMENTO	LARGA A M.LARGA
CURVATURA PRIMER SEGMENTO	MEDIA A FUERTE
VELLOSIDAD LATERAL PRIMER SEGMEN	NULA A DEBIL
ARQUEAMIENTO SEG.1/3 MEDIO	DEBIL
SINUOSIDAD SEGMENT.1/3MEDIO(2C)	FUERTE
GRADO ALINEACION SEGMENT.(6C)	
POSICION ESPIGUILLAS	LIG.DIVERGENTES
LONGITUD ESPIGUILLAS	MEDIAS
LONGITUD PALEA/LEMMA	MAS CORTAS
FORMA DEL APICE LEMMA	REDONDEADO
COLOR RAQUILLA	BLANCA
LONG.GLUMA+ARISTA/GRANO	IGUAL
VELLOSIDAD GLUMA	EN BANDA
VELLOSIDAD RAQUILLA	PELOS LARGOS
TIPO DE GRANO	TIPO A
VELLOSIDAD SURCO VENTRAL	AUSENCIA
DENTADURA NERV.CENTRAL LEMMA	AUSENCIA
DENTADO NERV.LAT.INTERNA LEMMA	AUSENTE
DENTADO NERV.LAT.EXTERNA LEMMA	PRESENTE
RETENCION PIG.ANTOC.NERV.LEMMA	AUSENTE
COLOR ALEURONA	BLANCA
DISPOSICION LODICULAS	LATERALES
LONGITUD LODICULAS	CORTAS
EPOCA DE SIEMBRA	PRIMAVERA

8700186

EXHIBIT E

"Statement of the Basis of Applicant's Ownership"

MMG AGRISEED is the owner of the variety "CAMELOT" by virtue of the fact that it was MMG AGRISEED that performed the requisite crossing and selection work as described in Exhibit A of this application. This ownership is further corroborated by reference of the U.K. and Spanish varietal descriptions as shown in Exhibit D, with registration and release in those countries, as well as West Germany, as specified in section 19 of this application. Ownership of the variety has been maintained exclusively by MMG AGRISEED since the development of the variety as specified in Exhibit A.

Signed, D P Ruddick.

Douglas P. Ruddick
Chief Executive
MMG AGRISEED

1st September 1987.

MMG AGRISEED

PLANT BREEDERS AND SEED SPECIALISTS

BY APPOINTMENT
TO HER MAJESTY THE QUEEN
SEED SUPPLIERS
MMG (UNITED KINGDOM) LTD.
KING'S LYNN

8700186

Plant Breeding & Research Centre,
Docking, King's Lynn, Norfolk PE31 8LS
Telephone: Docking (04858) 501
Telex: 817478

18th May 1987

AUTHORISATION OF AGENT

I hereby authorise Bruce Tainio of Tainio Technology and Technique Incorporated of Route 2, Box 286, S.12102 Andrus Road, Cheney, W.A. 9904, U.S.A. to sign any application, notice or other document given, delivered to or served upon the United States Department of Agriculture in accordance with the application for Plant Variety Protection relating to the Spring barley variety CAMELOT.

Signed D.P. Lucas Date 18th May 1987

Address Plant Breeding and Research Centre, Docking,

King's Lynn, Norfolk, PE31 8LS, United Kingdom.

DPR/VL